

REMARKS

Status of the Application

Claims 1, 7-9, 11-15, 17, 18, 20, 22, 26, 29, 31-33, 48, 53, 54, 57, 58, 61, 62, 64, 66, 68-74, 99, and 102-110 are pending. Reconsideration of the application is respectfully requested.

Rejections Under 35 U.S.C. § 103

Gonjo In View Of Reiser

Claims 1, 7-9, 11, 12, 17, 18, 20, 22, 26, 29, 31, 33, 57, 61, 62, 64, 66, 68-70, 74, 99, 102-105, and 107-109 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable in view of U.S. Patent No. 6,159,434 to Gonjo et al. ("Gonjo") in view of Great Britain Patent Application No. 2,128,013 to Reiser ("Reiser"). For the reasons that follow, this ground of rejection is respectfully traversed.

All of the rejections in the Office action improperly rely on the combination of Gonjo and Reiser. Applicants respectfully submit that Gonjo and Reiser cannot properly be combined to negate patentability of the claimed invention. In short, the Office action makes the bold assertion that it would have been obvious to one of ordinary skill in the art at the time of the invention to add a pressure vessel to any chemical process system to prevent valuable reactants and products from leaking out of the chemical reactor.<sup>1</sup> But this purported rationale directly conflicts with the utility Reiser teaches.

The sole reason Reiser used a pressure vessel was --- **it was required**. The pressure vessel in Reiser was by no means an option. Rather, Reiser was required to use a containment vessel because his design *necessarily* included leakage between the fuel cells and the external manifold.<sup>2</sup>

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<sup>1</sup> Office action, page 5.

<sup>2</sup> Reiser, page 1, lines 60-63.

The invention is particularly well suited for use with molten carbonate electrolyte fuel cell systems, since it has not been possible to create a nonleaking external manifold seal for that type of fuel cell stack.

As the foregoing quote from Reiser and the remainder of Reiser's disclosure unambiguously makes clear, leakage between the fuel cells and external manifolds always occurs. Absent a containment vessel housing a fluid at a pressure greater than the internal pressure on the inside of the fuel cells, an explosive environment would be created by the combustible gases leaking out of the fuel cells.

Reiser never discloses using the containment vessel for any purpose other than to house a high pressured fluid that leaks into the fuel cells. For example, Reiser never discloses that utilizing the pressure vessel allows for fabrication of the fuel cells from less durable materials. Absent the necessary leakage between the manifolding and fuel cells of Reiser, there is no apparent reason why Reiser uses a pressure vessel. In other words, there is no disclosure in Reiser that would lead one skilled in the art to opt for a pressure vessel, unless the skilled artisan was using a reactor that leaked. And the Office action acknowledges the fact that Gonjo, in contrast, discloses system that does not leak. Instead, the Office action actually cites to the portion of Gonjo confirming that leakage is never an issue -- which is precisely Applicant's point.

Gonjo teaches utilizing a Teflon gasket or seal material 31 in order to form a seal between manifolds and internal conduits -- just the opposite of what Reiser teaches. Because Gonjo can seal his plate stack using the seal material 31, one skilled in the art reading Reiser in combination with Gonjo would have no motivation to utilize a pressure vessel for a reactor that does not leak. To be sure, Office action incorrectly concludes that the embodiments of Gonjo address the problem of a leaking plate style reactor.

The Office action alleges that Gonjo and Reiser "address[] the same problem of leaking from a plate style chemical process system."<sup>3</sup> This allegation is simply not true. Rather, none of

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<sup>3</sup> Office action, page 4.

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the embodiments of Gonjo leak. Even if, solely for argument's sake, Gonjo and Reiser actually address the same problem of leaking from a plate style chemical process system, the necessary question is, what structure does each teach to overcome this problem?

The Office action posits that Reiser and Gonjo address the same problem with alternative solutions. Reiser addresses the problem of leaking from a plate style chemical by using a containment vessel to force fluid from the containment vessel into the plate style reactor. In contrast, Gonjo addresses the problem<sup>4</sup> of leaking from a plate style chemical by using Teflon gaskets, thereby prohibiting leakage into or out of the plate style process system. Consequently, even if Gonjo and Reiser address the same problem, one skilled in the art would know of alternative solutions – a pressure vessel or appropriate gaskets – but would by no means be motivated to combine these alternatives.

The Office action also speciously and summarily concludes, “one of ordinary skill in the art would recognize the benefit of using the pressure vessel of Reiser on any number of devices ... as a ‘backup’ measure.”<sup>5</sup> But what are these benefits? And what evidence is there that these benefits would have been understood by those skilled in the art? Instead, the Office action's alleged motivation to combine Gonjo with Reiser relies on solving a nonexistent problem. If, as Gonjo teaches, his high compression bonding by itself inhibits leakage, what basis would one of skill in the art have to use the pressure vessel of Reiser. It is illogical to conclude that those skilled in the art would employ two redundant solutions for overcoming the same problem. If, as the Office action posits, one skilled in the art would find it obvious to use two redundant solutions to this supposed problem, why has Applicants' invention not been disclosed previously? Why did Gonjo not come up with the same thing? The answers to these questions point away from obviousness, rather than toward obviousness.

Viewing Applicants invention as a whole, it is clear that Applicants' claims are not obvious. In *KSR*, the Supreme Court cautioned against concluding an invention was obvious simply because the invention is comprised of component parts already known.

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<sup>4</sup> Applicants do not agree that Gonjo addressed the same problem as Reiser, however for argument's sake, Applicant will presume this is true for presentation of the instant argument only.

<sup>5</sup> Office action, page 11.

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[I]nventions in most, if not all, instances rely upon building blocks long since uncovered, and claimed discoveries almost of necessity will be combinations of what, in some sense, is already known.<sup>6</sup>

Moreover, the Supreme Court cautioned against falling prey to hindsight reasoning when considering issues of obviousness.

A factfinder should be aware, of course, of the distortion caused by hindsight bias and must be cautious of arguments reliant upon ex post reasoning.<sup>7</sup>

Yet the Office action relies solely on hindsight to posit Applicants' claims are obvious without considering the absence of logic involved to implement redundancy with no apparent reason to do so. Accordingly, all of the rejections of record combining Gonjo with Reiser are in error.

Conclusion

In light of the foregoing, it is respectfully submitted that claims 1, 7-9, 11-15, 17, 18, 20, 22, 26, 29, 31-33, 48, 53, 54, 57, 58, 61, 62, 64, 66, 68-74, 99, and 102-110, now pending, are patentably distinct from the references cited and are in condition for allowance. Reconsideration and withdrawal of the rejections and objection of record are respectfully requested.

The Commissioner for Patents is hereby authorized to charge any additional fees that may be required by this paper, or to credit any overpayment to Deposit Account 50-3072.

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<sup>6</sup> *KSR Intern. Co. v. Teleflex Inc.*, 550 U.S. 398, 418-19 (2007).

<sup>7</sup> *KSR Intern. Co. v. Teleflex Inc.*, 550 U.S. 398, 421 (2007).

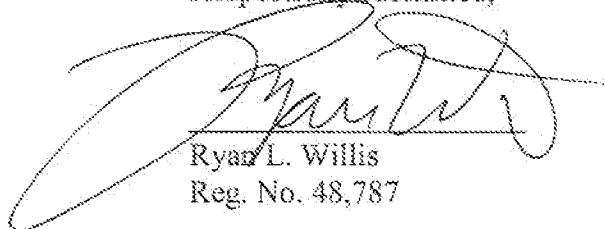
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In the event that the Examiner wishes to discuss any aspect of this response, please contact the undersigned at the telephone number indicated below.

Respectfully submitted,



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